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**Langenfeld et al.**(10) **Pub. No.: US 2022/0026118 A1**(43) **Pub. Date: Jan. 27, 2022**(54) **STIRLING CYCLE MACHINE****F16H 21/12** (2006.01)**F16H 35/18** (2006.01)(71) Applicant: **New Power Concepts LLC**,  
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(US)(21) Appl. No.: **17/393,355**(22) Filed: **Aug. 3, 2021****Related U.S. Application Data**(63) Continuation of application No. 15/790,790, filed on  
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Jul. 1, 2010, now Pat. No. 8,763,391, which is a  
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(57)

**ABSTRACT**

A Stirling cycle machine. The machine includes at least one rocking drive mechanism which includes: a rocking beam having a rocker pivot, at least one cylinder and at least one piston. The piston is housed within a respective cylinder and is capable of substantially linearly reciprocating within the respective cylinder. Also, the drive mechanism includes at least one coupling assembly having a proximal end and a distal end. The linear motion of the piston is converted to rotary motion of the rocking beam. Also, a crankcase housing the rocking beam and housing a first portion of the coupling assembly is included. The machine also includes a working space housing the at least one cylinder, the at least one piston and a second portion of the coupling assembly. An airlock is included between the workspace and the crankcase and a seal is included for sealing the workspace from the airlock and crankcase. A burner and burner control system is also included for heating the machine and controlling ignition and combustion in the burner.

